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## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276

THOMAS V. SKINNER, DIRECTOR

(412) 921- 7251

May 7, 2001

Task Order Manager  
Tetra Tech NUS, Inc.  
661 Anderson Drive  
Pittsburgh, PA 15220-2745  
Attn: Robert F. Davis

Re: Quality Assurance Project Plan  
Site 7 - RTC Silk Screen Shop and  
Site 17 - Pettibone Creek and Boat Basin  
Remedial Investigation and Risk Assessment

0971255048 -- Lake  
Great Lakes Naval Station  
Superfund/Technical Reports

Dear Mr. Davis:

The Illinois Environmental Protection Agency (IEPA or Agency) received the Quality Assurance Project Plan, Site 7 - RTC Silk Screen Shop and Site 17 - Pettibone Creek and Boat Basin Remedial Investigation and Risk Assessment, dated April 2001 and received at IEPA on April 16, 2001. The Agency has reviewed the document and provides the following comments:

- 1) Approval Page: Change Chris Hill to Brian A. Conrath.
- 2) Table of Content ("T.o.C."): Text goes from A6 to A6.A.1 without an A6.A.
- 3) T.o.C.: A9 is missing in the text. The title that should be A9 is listed as A9.A.
- 4) T.o.C.: Tables and Figures are not paginated. Without this it is hard to determine whether they are in Section A-1 or Appendix A-1.
- 5) T.o.C.: Section B8 has no page number.
- 6) T.o.C., Appendices: "DQOs" and "SOPs" should be written out to match the Title in the text.
- 7) T.o.C.: Need to include a distribution list.
- 8) Entire Document: Need to add a line for "Section # or letter" in header in upper right corner.
- 9) Section A: Need to include a brief summary/overview of the activities to be conducted under this phase. (This phase will include installing monitoring wells, taking soil cores, etc...)
- 10) Section A: Need to include a brief statement of how the acquired data will be used. (For what and how?)
- 11) Table A-1: The phone number for Brian A. Conrath is (217) 557-8155.

GEORGE H. RYAN, GOVERNOR

- 12) Section A: Section A starts with A4.A rather than with A1.
- 13) Section A4.D.1: Please include a reference to adherence to Good Laboratory Procedures (GLPs).
- 14) Appendix C, pg. 1, next to last paragraph: Change Chris Hill to Brian A. Conrath.
- 15) Section A9.A.2: The geologist mentioned in this section needs to be a Licensed Professional Geologist (LPG).
- 16) Section A9.A.4: Do all pieces of equipment have their own S.O.P.s and logbooks?
- 17) Section A9.A.6: There is no specific space on the Chain of Custody Form requesting/documenting the condition of the samples being received. The temperature and state (cracked, broken, thawed, frozen, etc...) as well as other possible descriptions should be noted on this form.
- 18) Section B2.A.1, first bullet: This lists the boring depths to be 25 ft. Bullet 2 states that 7 soil borings will be converted to temporary wells after sampling. The monitoring wells, from Table B-3, are to be an estimated depth of only 20 ft. This should be corrected to match the actual boring depth of 25 ft.
- 19) Section B2.A.3: The text states "Well screens will be approximately 10 feet in length, with exact lengths based on the geologist's interpretation of the lithology. The well screens will have a slot size of 0.010 inch ..." The well screen slot size should be matched to the grain size of the formation to be tapped as determined from testing (sieve test, etc.).
- 20) Section B2.A.10: The text states that "filtered and unfiltered surface water" samples "will be collected for metals analysis." There is no mention of the procedure for filtering the samples. Please address.
- 21) Section B3.B.2: Need to discuss in greater detail the procedure for reporting broken or compromised samples to the TOM. Specifically, discuss what the corrective action will be (i.e. additional sample collection, loss of sample data, etc...).
- 22) Section B6.B and B7: Be sure to update and or amend all information pertaining to the contract laboratory as soon as one is under contract.
- 23) Tables B12-24: Please be sure to include/complete Tables 12 through 24 when the laboratory has been procured.
- 24) Appendices: Field forms, sample labels, and records are shown by example. Please include examples of sample tags and seals, etc...
- 25) Appendix A.2, Site 17, pg. 9, 2.1, next to last paragraph, last line: Reference should be made to Site 17, rather than Site 7.
- 26) Appendix B, Site 17, 1.1.5.2 Sediment Screening Values: The text states "Sediment samples will not be sieved." It is IEPA's position and intent that sediment samples should be sieved. In his letter of March 22, 2001, to Bob Davis, Chris Hill stated that "The Agency recognizes the need for sediment samples from lotic environments to be subjected to processing for removal of sand and detritus which are irrelevant to the exposure of benthic organisms to sediment bound contaminants and which tend to confound the results. The exact procedures for this processing are flexible but should be consistent with the objectives of the assessment and adequate ecological health." He included in that letter a document

entitled "Evaluation of Illinois Sieved Stream Sediment Data: 1982-1995." The text in this Section states that "The primary reason for not sieving the sediment samples is that the sediment screening values (discussed below) are based on bulk sediments that are not sieved," and mentions that the aforementioned document includes a table of unsieved sediment data. What was not in the letter was that the author of that document, Matthew Short, was contacted and asked about his intent. Mr. Short stated that he is very aware of the controversy regarding the need for sieving sediments and adds that Illinois is a leader in taking a stand on this issue. Sieving is a valuable practice because it normalizes the results by removing the inert pebbles and sand and organic detritus prior to analysis. Normalization allows for reliable comparisons such as is the goal in the Pettibone Creek background screening evaluation. Therefore, the IEPA retains its position that sediments should be sieved.

- 27) Appendix B, Attachment 1, second paragraph, last word: This should end with a closing parenthesis.
- 28) Section A5.A and Appendix A, Section 2.1.1: The presence of a petroleum-like product described as a "green viscous material of unknown nature and extent" is mentioned in the text and is apparently located within the proposed Site 7 boundary, the Agency believes that this Remedial Investigation should include a plan to determine the nature, extent, and possible risks associated with this apparent contamination.
- 29) Appendix C, DQO, Site 17, pg. 2, Top: Change Chris Hill to Brian A. Conrath.
- 30) Appendix C, DQO Site 17: There are additional data that needs to be added to Steps 6 and 7. This is mentioned in the text. These need to be added prior to finalizing the QAPP.
- 31) Appendix E, pg. 10, 6th bullet: "Including" should be replaced with "Insuring".
- 32) Appendix E, S.O.P.s: Numbers 11 and 14 are duplicated.
- 33) Appendix G, HASP, pg. 1-6: My name is spelled Brian.
- 34) Appendix G, HASP, 2.8, bottom of page 2-10: There are no directions in text from Site 17 to the Hospital. These appear to have been truncated or deleted somehow.
- 35) Appendix G, 3.1.2, middle of first paragraph: The depth of the creek is listed here as several inches to 2 feet. It was listed previously as up to 6 feet deep. These should be consistent.

#### General Comments

- 36) Appendices A and B: Appendices A and B do a good job presenting the risk calculations, but there are no examples or procedures included for demonstrating the wet laboratory calculations. Please incorporate these as soon as possible after a laboratory has been identified. In addition, please be sure to specify the units for reporting in all determinations.
- 37) Identify the methods to be used to determine outliers or unacceptable data, other than being out of control limits. (i.e. T-test, etc...). The lab will probably supply this, but it needs to be included.
- 38) Section B5: Present a more detailed description of the field and laboratory audit procedures.
- 39) Add a distribution list for audit reports.
- 40) Do the SOPs contain critical spare parts listings? Are they handled in some other manner? This same comment applies to the laboratory.

41) Throughout the report, there are numerous typos (misspellings, omitted or duplicated words, or grammatical mistakes). Please review the text for these.

If you have any questions or require additional information, please contact me at (217) 557-8155 or by email at [brian.conrath@epa.state.il.us](mailto:brian.conrath@epa.state.il.us).

Sincerely,

*Brian A. Conrath*

Brian A. Conrath, Project Manager  
Federal Facilities Unit  
Federal Site Remediation Section  
Division of Remediation Management  
Bureau of Land

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cc: Owen Thompson, USEPA  
Anthony Robinson, Naval Facilities Engineering Command

bcc: Bureau File  
Des Plaines Regional